



The Bureau of Business and Economic Research

## The Importance of Public Health Care Funding to the Montana Economy

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**SUBMITTED BY:**

Bureau of Business and Economic Research  
The University of Montana  
Gallagher Business Building  
Missoula, MT 59812

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**BUREAU OF  
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RESEARCH**





## The Importance of Public Health Care Funding to the Montana Economy

### FINDINGS IN BRIEF

- Even if all Montana taxpayers receive state Medicaid and Medicare Hospital Insurance (Part A) taxes back, save and spend the money in Montana, federal and state dollars that support health care in Montana contribute to:
  - 11 percent of total economy-wide employment
  - 14 percent of economy-wide earnings
  - 5 percent of total industry-wide sales
- For every \$10,000,000 removed in federal and state support for health care:
  - 144 jobs would be lost economy-wide
  - \$6.6 million in earnings would be lost economy-wide
  - \$11.9 million in industry sales would be lost economy-wide
- Montana would have to cut total spending for Medicaid by \$3.13 to save \$1.00 in state Medicaid funds
- Medicaid spending generates economic activity, including jobs, income and state tax revenues at the state level, according to The Kaiser Commission on Medicaid and the Uninsured and based on findings from 29 studies in 23 states analyzing the role Medicaid plays in state and local economies.
- According to the Moore School of Business, University of South Carolina, “Most state government expenditures reallocate spending from one sector of the economy to another-with no net state income or jobs directly resulting from government spending. . . . State Medicaid funding is, however, a new job and income generator”
- Health care is almost 10 percent of the Montana economy
- Despite the recession the health care industry has shown positive annual employment growth for the last 7 years.
- Health care employment is 16 percent of total employment in Montana.



## The Importance of Public Health Care Funding to the Montana Economy

### DEFINING HEALTH CARE

Health care is typically defined by the North American Industry Classification System (NAICS) as Sector 62, Health Care and Social Assistance. Social assistance is included because it is often difficult to distinguish between the boundaries of social assistance activities and the more traditional fields of health care services. This is just one example of the difficulties in defining the health care industry. For example, nonmedical diet and weight-reducing centers are defined by Subsector 812, Personal and Laundry Services. Likewise for aerobic activities, which are assigned to the Subsector 713, Amusement, Gambling and Recreation Industries.

The structure of the NAICS is hierarchical. The first two digits of the structure designate the NAICS sectors that represent general categories of economic activity. Using only the two-digit classification, the entire economy may be broken down into 20 sectors. But Sector 62, Health Care and Social Assistance includes the subsectors 621, 622, 623 and 624. Subsector 621 comprises ambulatory health care services industries. This includes the offices of physicians, mental health specialists, dentists, chiropractors, optometrists, podiatrists, and physical, occupational, and speech therapists. Outpatient care centers are also included in Subsector 621, as well as family planning centers, outpatient substance abuse and mental health centers. Medical laboratories, home health care services, and ambulance services are also included. As can be seen by these examples, Subsector 621 is an all-encompassing collection of health care industries.

Subsector 622 is hospital services, providing medical, diagnostic, and treatment services to inpatients. Hospitals may also provide outpatient services as a secondary activity.

Subsector 623 represents industries in nursing and residential care. In this subsector, the health care provided is a mix of health and social services, with health services being mainly some level of nursing services.

Subsector 624 comprises industries providing a wide variety of social assistance services directly to their clients.

These services do not include residential or accommodation services, except on a short stay basis. Included in this subsector are child and youth services, services for the elderly and people with disabilities, community housing services, child day care, and vocational rehabilitation services.<sup>1</sup>

Other industries however may also be considered as providing services in the health care field depending on how the industry is defined. For example, NAICS 92312 defines an industry as the administration of public health programs. This industry group comprises government establishments primarily engaged in the planning, administration, and coordination of public health programs and services, including environmental health, mental health, health statistics, and immunization services. In Montana, this industry is an important economic entity both in terms of employment and payroll. Nearly 4,000 federal, state and county employees with a combined wage of \$188.3 million exist under NAICS 93212. This represents nearly 6.5 percent of the total federal, state, county and private health care employment in NAICS 621, 622, 623 and 624. And if one defines the health care industry to the six digit NAICS level of detail, another potential gain of nearly 20 additional industries contributing 7,000 jobs and a payroll of over \$341.9 million may be added to the health care sector in Montana. This would include industries such as medicinal and botanical manufacturing, electro medical apparatus manufacturing, along with more recognized industries in some aspect of health care services delivery, such as health insurance carriers and health research and development laboratories.

This study defines the health care industry as the NAICS subsectors 621, 622, 623 and 624. And given the emphasis on the public aspect of health care delivery and financing, includes the NAICS subsector 92312, Administration of Public Health Programs.

<sup>1</sup> For a thorough description of health care industries and their corresponding sector assignment, see the North American Industry Classification System, United States, 2007, Executive Office of the President, Office of Management and Budget.





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### NATIONAL TRENDS IN HEALTH CARE SPENDING

National health expenditures are expected to top nearly \$2.5 trillion in 2009, increasing health care's share of Gross Domestic Product from 16.2 percent in 2008 to 17.3 percent in 2009. This represents the largest one year increase in history and is largely the result of a shrinking national economy due to the recession that began in 2007. Larger increases in the health care spending share of the economy generally occur during or just after period of economic decline.

For the next nine years, average annual health care spending is expected to be 6.1 percent, easily outpacing the secular trend of national Gross Domestic Product of 2 percent to 3 percent. By the end of the next decade, national health spending may churn up nearly 20 percent of our nation's GDP.

Of importance for this study is the trend in public versus private spending for health care. The public share of total health care spending will increase from 47 percent in 2008 to over 50 percent by 2012, and eventually reaching 52 percent by 2019. By around 2016, a major shift is expected to occur in the balance between public and private spending for health care. This shift is due mainly to the aging demographic of the nation, and to a greater extent, for Montana. This month, the first of the baby boomers qualifies for Medicare, the federal program financing primarily hospital, physician and drug expenses. Then, every eight seconds another boomer qualifies for Medicare, continuing until the year 2029. An aging population spends more per capita on health care, and virtually no health care industry will go untouched.

Three programs administered by the U.S. Department of Health and Human Services (DHHS) comprise three-fourths of all public spending on health care: Medicare, Medicaid, and the Children's Health Insurance Program (CHIP). The

remaining portion of public spending for health care comes from a variety of sources, including the health care program for military personnel under the Department of Defense, hospital, nursing home, and other medical services provided by the Department of Veterans Affairs, non-commercial medical research, payments for health care under Workers' Compensation programs, health programs under state-only general assistance programs, maternal and child health, school health programs, subsidies for public hospitals and clinics, Indian health care services, substance abuse and mental health activities, and medically related vocational rehabilitation services. Quantifying literally every federal and state program proves to be an insurmountable task.

Further complicating the estimation of the importance of public funding for health care is the changing dynamic with respect to health care in general and the economy specifically. As just one example, the American Recovery and Reinvestment Act (ARRA) signed into law in February 2009 has provided over \$790 billion to states as tax relief, expansion of unemployment benefits, and domestic spending on education, health care, and infrastructure. According to [HHS.gov/Recovery](http://HHS.gov/Recovery), Montana alone has received over \$191 million, including funding for the state Medicaid program, community health centers, nutrition services, and other health and health-related programs.

All in all, however, public spending for health care is expected to accelerate, from 5 percent growth in 2010 to over 8 percent growth in 2018. Understanding the importance of the public health care dollar is important to any state economy, especially so for Montana given that more baby boomers and veterans choose to live in Montana than national averages suggest.





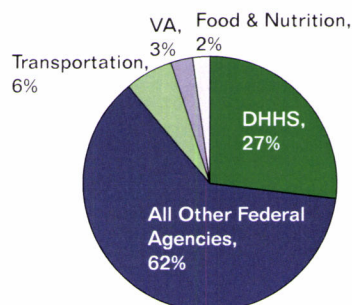
## The Importance of Public Health Care Funding to the Montana Economy

### THE IMPORTANCE OF PUBLIC SPENDING IN HEALTH CARE: U.S. AND MONTANA

Just three programs (Medicare, Medicaid, and CHIP) under the auspices of the Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services, account for over three-fourths of all public spending on health care. For federal fiscal year 2009, the Department of Health and Human Services alone was responsible for almost 30 percent (\$907.0 billion) of all federal government expenditures (\$3,238.4 billion). For Montana, federal expenditures by the DHHS totaled \$3.0 billion, or 28 percent of total federal expenditures to Montana.

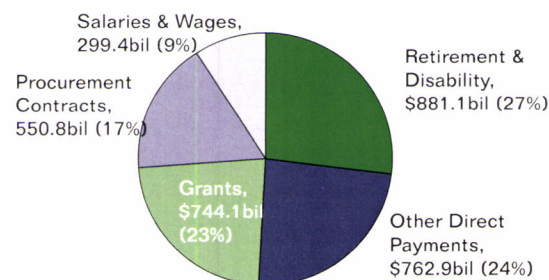
Federal government expenditures by major object category nationally differ somewhat from Montana. Procurement contracts are substantially less in Montana than for the nation, while other direct payments, retirement and disability payments, and grants are substantially above the proportions nationally. Other direct payments made by the DHHS include payments for individuals under Medicare prescription drug coverage, Medicare hospital insurance, and Medicare supplemental medical insurance. Grants to Montana include over 140 programs all under the auspices of the DHHS. Most notable among these programs is the Medical Assistance Program, or Medicaid. Other grants include the State Children's Health Insurance Program (CHIP), Head Start, Temporary Assistance for Needy Families, various grants to Montana's community health centers, various grants on aging, mental health, and many others. Figures 2 and 3 depict federal expenditures by major object categories nationally and in Montana.

Figure 1  
Federal Expenditures, Montana, FY 2009



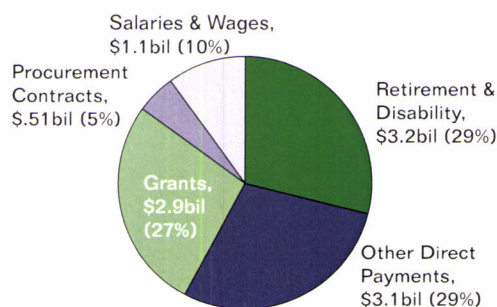
Source: Consolidated Federal Funds Report for Fiscal Year 2009, U.S. Census Bureau, August 2010.

Figure 2  
Federal Government Expenditure by Major Object Category: FY 2009, U.S.



Source: Consolidated Federal Funds Report for Fiscal Year 2009, U.S. Census Bureau, August 2010.

Figure 3  
Federal Government Expenditure by Major Object Category: FY 2009, Montana



Source: Consolidated Federal Funds Report for Fiscal Year 2009, U.S. Census Bureau, August 2010.



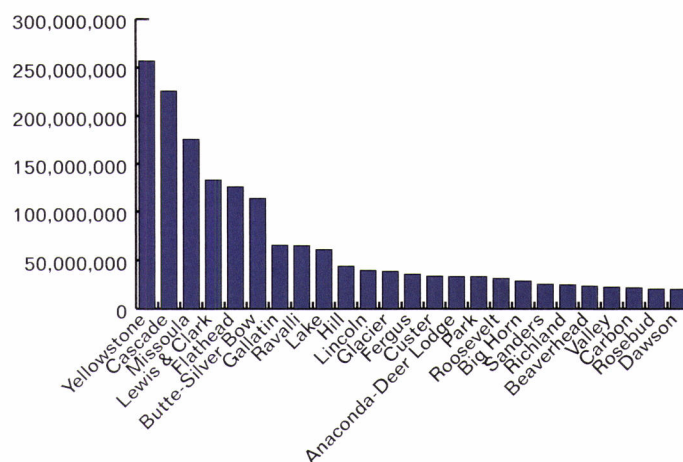


## The Importance of Public Health Care Funding to the Montana Economy

Table 1 shows the federal expenditures for the thirteen operating divisions under the U.S. Department of Health and Human Services for Montana. The Centers for Medicare and Medicaid Services (CMS) account for 85 percent (\$2.6 billion) of all DHHS expenditures to Montana (\$3.0 billion). And of the total CMC expenditures, 99 percent comprise other direct payments for individuals (Medicare prescription drug coverage, hospital insurance, and supplemental medical insurance), and grants (medical assistance program and the State Children's Health Insurance Program).

It is also possible to track federal expenditures by both agency and program type for individual counties. Figure 4 shows the top 25 counties in Montana receiving federal assistance payments under Medicare (except prescription drug coverage), Medicaid, the State Children's Health Insurance Program (CHIP), and the Supplemental Nutrition Assistance Program (SNAP)<sup>2</sup>. SNAP is included since it is a significant expenditure from the Department of Agriculture that affects many Montanans, and is indirectly connected to the health care sectors.

**Figure 4**  
Federal Spending by County, Select Programs



Source: Consolidated Federal Funds Report for Fiscal Year 2009, U.S. Census Bureau, August 2010.

<sup>2</sup>SNAP is the new name for the Federal Food Stamp Program as of October 1, 2008. Children automatically qualify for free school breakfast and lunch when they receive SNAP benefits.

**Table 1**  
U.S. Department of Health and Human Services Payments to Montana, 2009, by Division

| Operating Division  | Expenditure     |
|---|-----------------|
| Centers for Medicare and Medicaid Services                | \$2,565,647,159 |
| Administration for Children and Families                  | \$186,354,963   |
| National Institutes of Health                             | \$81,410,019    |
| Health Resources and Services Administration              | \$42,428,181    |
| Indian Health Service                                     | \$20,260,619    |
| Centers for Disease Control and Prevention                | \$14,308,306    |
| Substance Abuse and Mental Health Services Administration | \$12,489,986    |
| Administration on Aging                                   | \$8,703,310     |
| Public Health Service                                     | \$6,669,718     |
| Immediate Office of the Secretary of Health               | \$2,880,587     |
| Office of the Assistant Secretary for Health              | \$783,896       |
| Food and Drug Administration                              | \$518,467       |
| Agency for Health Care Policy and Research                | \$511,208       |
| All Divisions   | \$3,005,575,880 |

Source: Consolidated Federal Funds Report for Fiscal Year 2009, U.S. Census Bureau, August 2010.





## The Importance of Public Health Care Funding to the Montana Economy

### PUBLIC FUNDING OF PERSONAL HEALTH CARE EXPENDITURES

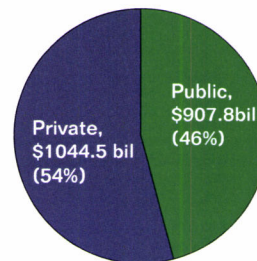
Personal health care expenditures include spending on hospital care, professional services (doctors, dentists, and clinical services), nursing home and home health services, and retail sales of prescription drugs and medical products. It is an often used benchmark to measure the nation's health care spending trend<sup>3</sup>. Public funding accounts for 46 percent of total personal health care spending, with the balance coming from out-of-pocket and private insurance sources. (Figure 5).

Of the \$907.8 billion public funding for personal health care spending, the federal government is responsible for almost \$0.80 of every dollar. State and local support of personal health care spending only accounts for 21 percent of total public spending for personal health care. (Figure 6).

It is also possible to see the importance of public funding by type of health care expenditure. Hospitals obtain 46 percent of their expenditures from federal sources, with state and local governments picking up another 11 percent. Private health insurance provides 36 percent of hospital spending, followed by other private funds and out-of-pocket spending. (Figure 7).

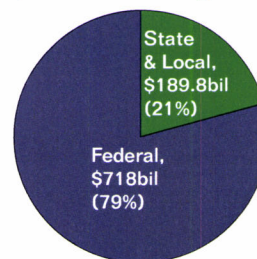
<sup>3</sup>Personal health care expenditures are a subset of national health expenditures, which includes government public health activities and research, structures and equipment. Personal health care expenditures account for over 90 percent of national health expenditures in the United States.

Figure 5  
2008 Personal Health Care Spending,  
by Private & Public Funding Sources



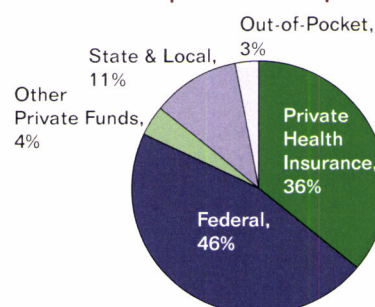
Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Department of Commerce, Bureau of Economic Analysis; and U.S. Bureau of the Census.

Figure 6  
2008 Personal Health Care Spending,  
by Public Funding Sources



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Department of Commerce, Bureau of Economic Analysis; and U.S. Bureau of the Census.

Figure 7  
Hospital Care Expenditures, U.S. 2008



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Bureau of the Census.





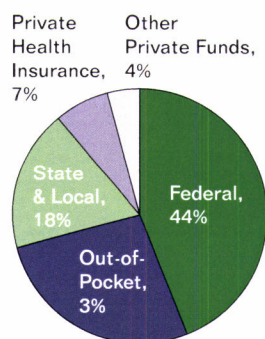
## The Importance of Public Health Care Funding to the Montana Economy

Nursing home expenditures are similarly reliant on federal funding, relying on the federal government for 44 percent of their expenditures and state and local governments for an additional 18 percent. Private health insurance accounts for only 7 percent of nursing home expenditures, placing additional dependency on public funding sources (Figure 8).

Doctors, on the other hand, rely more on private insurance, which accounts for almost half of all expenditures for physician and clinical services. Federal support is still evident however, with 29 percent of physician and clinical expenditures coming from the federal government. (Figure 9).

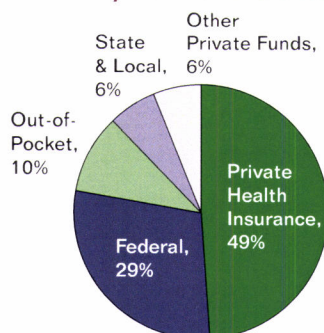
One way to fully understand the importance of all personal health care spending in Montana is to put it in the perspective of the state's gross state product. Using gross state product as a benchmark, personal health care spending would comprise over 17 percent of the state's gross product.

**Figure 8**  
Nursing Home Care Expenditures, U.S. 2008



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Bureau of the Census.

**Figure 9**  
Physician and Clinical Services Expenditures, U.S. 2008



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; U.S. Bureau of the Census.





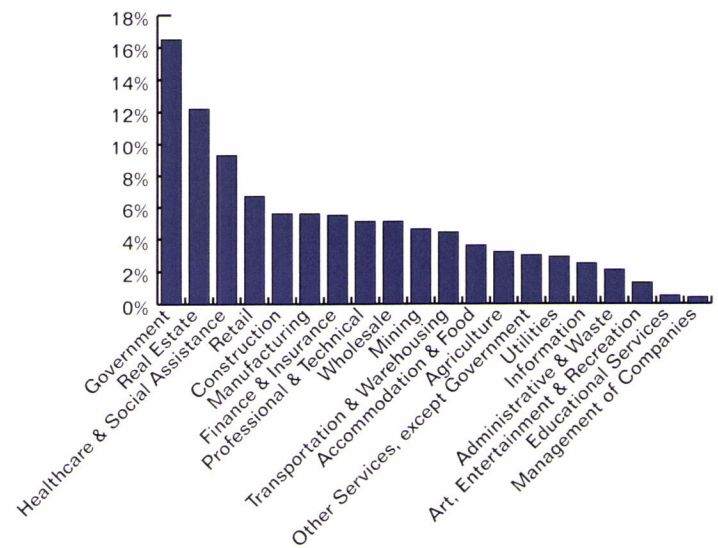
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### HEALTH CARE EMPLOYMENT AND WAGES IN MONTANA

The health care sector as defined by NAICS 62 is 9 percent of Montana's Gross State Product (GSP). Only government (federal civilian, federal military, state and local government) and real estate-rental and leasing exceed it in terms of gross state product. (Figure 10).

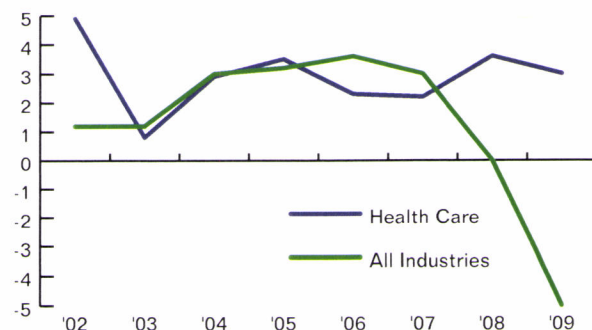
Not only is health care and social assistance a big player in terms of the overall economy (gross state product), it is a significant economic sector in terms of employment, particularly in light of the recent recession and the employment impact on many of Montana's industries. Figure 11 shows the percentage change in private employment from the previous period for all industries and the health care and social assistance industry for the period 2001 through 2009. As is readily apparent, health care growth has remained positive over the reporting period, while overall employment has plummeted due to the recession.

Figure 10  
Gross State Product by 2 Digit NAICS, 2009



Source: Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 11  
Change in Private Employment from Previous Year,  
All Industries and Health Care



Source: U.S. Bureau of Labor Statistics.



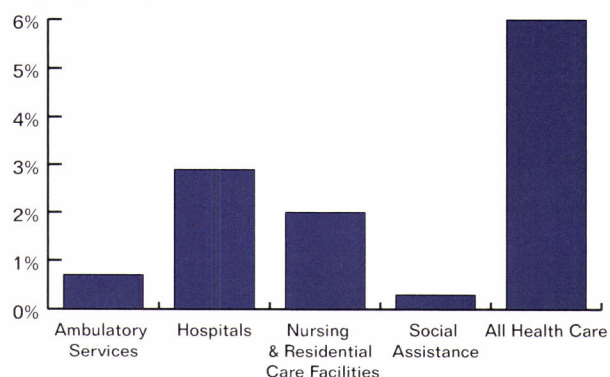


## The Importance of Public Health Care Funding to the Montana Economy

Figure 12 shows the relative share of public employment within the traditional health care sectors of ambulatory care, hospitals, nursing and residential care services, and social assistance services for 2009. Public employment includes federal, state, and county employment. Public employment in health care accounts for almost 6 percent of total health care employment in Montana. Employment in federal hospital facilities is responsible for most of the public employment in hospitals, while state and county employment dominate public employment nursing homes and residential care.

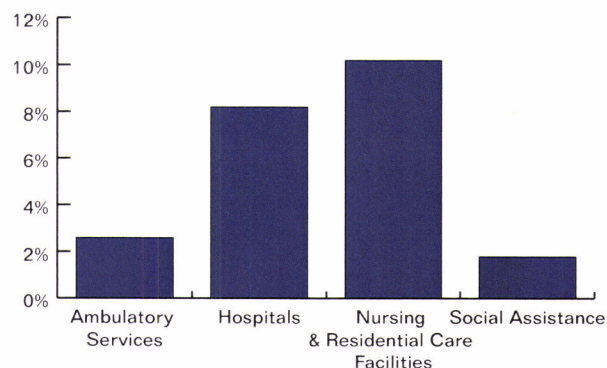
Perhaps more apparent is the role public employment plays in each health care sector's total employment. Figure 13 shows that for nursing homes and residential care services, public employment is over 10 percent of the total employment in nursing homes and residential care services. Hospitals follow, with public employment's share of total hospital employment slightly over 8 percent.

**Figure 12**  
Public Employment Share of Total Health Care Employment, 2009



Source: Quarterly Census of Employment and Wages, Montana Department of Labor and Industry.

**Figure 13**  
Public Employment Share of Total Health Care Employment by Sector, 2009



Source: Quarterly Census of Employment and Wages, Montana Department of Labor and Industry.





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### HEALTH CARE'S EMPLOYMENT SHARE OF TOTAL MONTANA ECONOMY

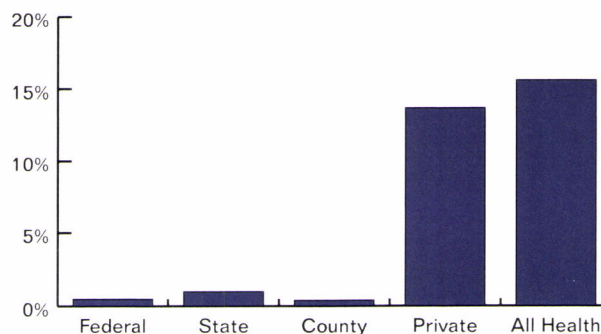
This study defines health care as NAICS sector 62 (comprising NAICS subsectors 621, 622, 623, and 624) and NAICS 92312, Administration of Public Health Programs. Recall earlier that sector 92312 adds over 3,900 jobs and \$188.3 million in wages to the Montana economy. Adding together federal, state, county and private employment in these sectors boosts health care's employment share to almost 16 percent of the Montana economy. (Figure 14). This estimate is based on the Bureau of Labor Statistics Quarterly Census of Employment and Wages, which excludes the self-employed. The self-employed are 28 percent of total employment in Montana. Estimates of employment presented later in this report use the Bureau of Economic Analysis data for employment, which includes the self-employed. Federal, state, and county employment in health care accounts for 2 percent of total Montana employment.

### RESEARCH METHODOLOGY

This study estimates the importance of federal and state health care dollars to the Montana economy. Federal and state spending on health care contributes to jobs, labor income, and sales in the health care sector, but also spill over into other sectors of the economy as payroll is spent and health care industries purchase supplies from other Montana businesses. These economy-wide responses resulting from health care spending can be particularly important not only at the state level but also at the county level. For many Montana communities, the local hospital and its ties to other businesses for its operational demands can have a significant economic ripple effect in terms of jobs and additional labor income.

A well-documented and widely-respected model, IMPLAN, is used to capture the economy-wide responses to federal and state involvement in health care delivery and financing. IMPLAN, or Impact Analysis for Planning, was first developed in the 1970-s by the U.S. Department of Agriculture Forest Service as a land and resource planning tool. In 1993, the Minnesota IMPLAN Group Inc. was

**Figure 14**  
Health Care Employment Share Total Montana Employment, 2009  
(including Adm of Public Health Programs)



Source: Quarterly Census of Employment and Wages, Montana Department of Labor and Industry.

formed to privatize IMPLAN data and software. Today, it is one of the most widely-used models to capture the economy-wide impacts resulting from a change in industry activity. IMPLAN has been used by over 25 federal agencies, 100 state agencies, 150 universities, 80 local governments and not for profits, and 100 private entities. The IMPLAN model may be used to analyze a wide variety of issues, such as industry relocation, stadium development, military base closings, and economic base analysis to name just a few.

IMPLAN has as its basic framework an Input-Output model, which shows the inter-industry relationships between various sectors of an economy as they buy and sell to each other, as well as between businesses and final consumers. It captures all monetary market transactions within a pre-defined economy, mostly a county, state, or regional economy. Wassily Leontief pioneered the work in input-output analysis, and subsequently was awarded the Nobel Prize in economics in 1973.





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Industries that produce goods and services for final consumption purchase intermediate inputs, or goods and services from each other. Given a demand change for the goods or services from some defined industry, other industries must gear up to supply the necessary inputs. These purchases constitute the “indirect” purchases resulting from some initial change in demand for a particular good or service. These indirect purchases continue until leakages occur, such as imported goods and services and wages and profits that accrue to owners outside the area of impact.

The health care sector is defined as the employment and wages in sector 62, Health Care and Social Assistance, along with the employment and wages in sector 92312, Administration of Public Health Programs. While other sectors may be directly tied to the health care industry, the results of this study are derived from Sector 62 and sector 92312.

### MODELING COMPONENTS

This study models seven components of health care spending in Montana. Three of the components, Medicare, Medicaid and CHIP, account for over 75 percent of total public health care spending nationally. All three subcomponents under Medicare, prescription drug coverage, hospital insurance, and supplemental medical insurance are modeled in this study. Together they comprise over \$1.8 billion in federal funds in Montana.

Federal Medicaid funds totaled \$681.4 million in 2009. The Federal Medical Assistance Percentage (FMAP) is the federal match that determines the federal “share” of Medicaid program costs. It is recalibrated annually depending upon the average personal income in the state. Prior to FY 2009 and passage of the American Recovery and Reinvestment Act, the FMAP averaged around 57 percent nationwide. During fiscal years 2009 and 2010, the ARRA-enhanced FMAP’s range from 61 percent to 84 percent.

Since the FMAP used to determine the state’s Medicaid match is a moving target, this study used the FY 2009 FMAP of 68 percent, considered in the “normal” range for FMAP matching rates. *Assuming a federal match of 68 percent, the federal*

*government contributes \$2.13 for every state dollar used for Medicaid.*

The Kaiser Commission on Medicaid and the Uninsured compiled findings from 29 studies in 23 states analyzing the role Medicaid plays in state and local economies. These studies show that Medicaid spending creates jobs, income, and state tax revenues. Further, studies show that Medicaid’s economic impact is intensified because of the federal match. In Montana, to save \$1 in state Medicaid spending overall Medicaid spending must be cut by \$3.13.

Complicating the determination of the state match is the budgeting process for Montana government operations. Distinguishing between general fund uses and special state and special federal funds was problematic from several aspects. State special funds include intergovernmental transfers, utilization fees for hospitals and nursing homes, tobacco interest and settlement monies, to name just a few.

In addition, the federal fiscal year, which provided most of the data for this study, differs from the state’s fiscal year. Also complicating matters was the accrual basis of accounting, and the difference between appropriations and what is actually spent.

In order to estimate the impact of state Medicaid funds, the FMAP of 68 percent was used on the federal participation of \$681.4 million.<sup>4</sup>

The distribution of Medicare and Medicaid funds was modeled across the health care sectors based on the disbursement of these funds in Montana during 2004 (Centers for Medicare and Medicaid Services, Office of the Actuary).

Three other components are also modeled. The Supplemental Nutritional Assistance Program, or SNAP, is modeled due to its sizable federal funding, \$134.6 million in Montana. Also modeled is the veteran’s administration funding of the two veteran’s nursing homes (\$3.8 million) and VA expenditures for medical care (\$192.4 million).

Finally, the payrolls associated with both federal and state employees directly tied to health care are modeled. Payrolls create economy-wide responses as employees spend their

<sup>4</sup>A 1 percent increase in the Medicaid match rate increases the state match requirement by \$7.5 to \$8.0 million annually.





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paychecks locally, creating additional jobs, labor income and industry sales state-wide.

Unique to this study is the net contribution of state and federal support in health care to the Montana economy. Particularly for Medicare and Medicaid, the taxes paid by Montanans represent a loss of buying power. Although the spending of dollars anywhere by any entity creates jobs, sales and labor income, the taxes paid to support this spending must be considered. In order to estimate the net contribution of public health care spending, the loss of buying power by Montanans as they pay taxes to support Medicare and Medicaid is considered. This amounts to \$320 million in reduced spending power for Medicaid (the state match) and nearly \$660 million in Medicare taxes paid. Medicare taxes paid are estimated using 2009 earnings as reported by the Bureau of Economic Analysis and the mandatory payroll tax of 2.9 percent (employer and employee share).

### FINDINGS

The following results are estimated from expenditures and payroll associated with federal payments of:

1. \$1.8 billion in payments for individuals for Medicare prescription drug coverage, hospital insurance, and supplemental medical insurance,
2. \$681.4 million in grants for medical assistance programs (Medicaid),
3. \$33.0 million for the State Children's Health Insurance Program (CHIP),
4. \$192.4 million from the Veteran's Administration for medical care,
5. \$3.8 million from the Veteran's Administration for state nursing home care,
6. \$134.6 million from the Department of Agriculture for the Supplemental Nutrition Assistance Program (SNAP),
7. \$221.2 million for federal employees directly employed in health care.

In addition, the state of Montana's share of financial involvement in health care is limited to:

1. \$320 million in estimated state match for Medicaid participation,
2. \$214.9 million in state payroll for state employed individuals directly involved in health care.

*It is important to note that the estimates presented in this report are net of state taxes paid to support both Medicare Part A and Medicaid.* These estimates reflect the fact that state taxpayers lose buying power when paying taxes to support both state and federal programs. This loss of buying power resulting from taxes paid is incorporated into this analysis, hence; these estimates reflect those jobs, earnings and sales that accrue to the state of Montana net of taxes paid. Without this adjustment for loss of buying power, the estimates would be considerably larger.<sup>5</sup>

Results are presented for both economy-wide impacts, that is, on the entire Montana economy, and individually for the health care sectors ambulatory care, hospitals, nursing and residential care services, and social assistance. Impacts are presented for jobs, earnings (labor income) and sales. All dollars are in the year of analysis, 2009, and reported in thousands of dollars.

<sup>5</sup>Without incorporating the tax impact, approximately 10,000 jobs, \$324 million in earnings, and \$1.1 billion in sales would be added to the estimates in this report.



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Table 2 shows that over 6,000 jobs in Montana are federal and state employees directly employed in ambulatory care, hospitals, nursing and residential care, social assistance, and the administration of public health programs, accounting for only 1.2 percent of total private employment.<sup>6</sup> The impact of federal and state support in health care however affects another 27,348 jobs directly, as health care dollars are spent across all health care sectors. But as the health care sector responds to these added demands for goods and services, an additional 19,112 jobs are created economy-wide. In total nearly 11 percent of Montana's employment is affected by federal and state support of health care. Again, it is important to remember that the loss of buying power resulting from households paying taxes, and hence job loss, is incorporated into this analysis.

Table 3 breaks the job impact down by health care sector. As expected, the largest impact on jobs is in the health care industry. Over 25,000 jobs in health care depend on federal and state support, representing 37 percent of total employment in health care. While nearly every practitioner and institution in the delivery of health care is affected by federal and state support of some kind, this number of jobs reflects those that are entirely attributable to federal and state

<sup>6</sup>The Bureau of Economic Analysis reports employment for private and governmental entities. For 2009, private employment was 501,365, and government employment, covering all industries, was 95,594. These figures represent both full and part time jobs.

**Table 2**  
The Net Impact of Federal and State Support in Health Care on Jobs in the State Economy

| Economy Wide Jobs Dependent on Federal & State Health Care Funding        |   |
|---|---|
| Federal & State Jobs in Health Care                                       | Percent of Total Private Jobs (501,365) |
| 6,167   | 1.2                                     |
| Additional Jobs Directly Dependent on Federal & State Health Care Funding |   |
| 27,348  | 5.5                                     |
| Additional Jobs Indirectly Dependent on Federal & State Funding           |   |
| 19,112  | 3.8                                     |
| Total Economy Wide Jobs Tied to Federal & State Health Care Funding       |   |
| 52,627  | 10.5                                    |

funding in health care. It is not unreasonable to assume that many other health care jobs would suffer reduced earnings and employment opportunities. The sector most affected by federal and state support, as a percentage of its employment base, is hospitals. Nearly 70 percent of the jobs in hospital care are affected by federal and state funding.

**Table 3**  
The Net Impact of Federal and State Support in Health Care on Jobs in the State Economy

| Health Care Sector         | Jobs Dependent on Federal & State Funding | Number of Total Private Health Care Jobs, by Sector | Percent of Total Private Health Care Jobs, by Sector |
|----------------------------|---|---|--|
| All Health Care            | 25,246                                    | 68,087  | 37.1   |
| Ambulatory Care Services   | 4,576                                     | 21,615  | 21.2   |
| Hospitals                  | 14,561                                    | 20,626  | 70.6   |
| Nursing & Residential Care | 5,650                                     | 11,127  | 50.8   |
| Social Assistance          | 459                                       | 14,719  | 3.1  |





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Tables 4 and 5 present the impacts of federal and state support on earnings. Earnings represent the wages and salaries, including fringe benefits, for employed individuals and proprietors. Proprietors, or those without employees, represent nearly 28 percent of the total jobs in Montana for 2009. In health care, proprietors account for less than 1 percent of total jobs in Montana.

**Table 4**  
The Net Impact Federal and State Support  
in Health Care on Earnings in the State Economy

| Economy Wide Earnings Dependent<br>on Federal & State Health Care Funding<br>(includes fringe benefits, thousands of 2009 dollars) |   |
|--|---|
| Federal & State Earnings<br>in Health Care   | Percent of Total Private Earnings<br>(\$17,164,129) |
| \$436,092  | 2.5   |
| Additional Earnings Directly Dependent<br>on Federal & State Health Care Funding   |   |
| \$1,341,926  | 7.8   |
| Additional Earnings Indirectly Dependent<br>on Federal & State Funding   |   |
| \$624,599  | 3.6   |
| Total Economy Wide Earnings Tied<br>to Federal & State Health Care Funding   |   |
| \$2,402,616  | 14.0  |

The estimated earnings for both federal and state employees directly involved in health care are \$436.1 million, representing only 2.5 percent of total private earnings in Montana. But as was the case for employment, expenditures by federal and state entities for health care directly account for another \$1.3 billion in earnings statewide. As the health care sector responds to the added demands for goods and services, an additional \$624.6 million in earnings is generated economy-wide. In total, over \$2.4 billion in earnings is directly and indirectly tied to federal and state support of health care, accounting for 14 percent of the total private earnings in Montana.

Table 5 estimates the earnings attributable to federal and state support in the health care sectors. Over \$1.3 billion in earnings, or almost half of total private earnings in Montana, is generated by federal and state support. As was the case with jobs, hospitals are most impacted, followed by nursing and residential care. Note that earnings, as a percent of total earnings, are significantly larger than the share of jobs attributable to state and federal support (42.6 percent versus 37.1 percent). This partly reflects the higher average salaries paid in health care, compared to the state as a whole.

**Table 5**  
The Net Impact of Federal and State Support in  
Health Care on Earnings in the Health Care Sector

| Health Care Sector         | Earnings Dependent<br>on Federal & State Funding<br>(thousands of 2009 dollars) | Total Private Health Care<br>Earnings, by Sector<br>(thousands of 2009 dollars) | Percent of Total Private Health<br>Care Earnings, by Sector |
|----------------------------|---|---|---|
| All Health Care            | \$1,316,010   | \$3,085,907   | 42.6  |
| Ambulatory Care Services   | \$259,172   | \$1,277,588   | 20.2  |
| Hospitals                  | \$867,843   | \$1,223,554   | 70.9  |
| Nursing & Residential Care | \$169,780   | \$318,353   | 53.3  |
| Social Assistance          | \$19,215  | \$266,412   | 7.2   |





## The Importance of Public Health Care Funding to the Montana Economy

The next two tables estimate the influence of federal and state support in health care on industry sales in Montana. Table 6 shows that \$4.3 billion in sales is tied to federal and state support of health care, accounting for 5 percent of total estimated sales in Montana. It should be pointed out that the impact on sales appears less pronounced than on jobs and earnings. This primarily reflects the fact that productivity in the health care industry is greater, on a per unit basis, than in other industries.

**Table 6**  
**The Net Impact of Federal and State Support in Health Care on Sales in the State Economy**

| <b>Economy Wide Sales Dependent on Federal &amp; State Health Care Funding (thousands of 2009 dollars)</b> |  |
|--|--|
| <b>Sales Directly Dependent on Federal &amp; State Funding</b>   | <b>Percent of Total Sales (\$80,072,745)</b> |
| <b>\$2,291,177</b>   | <b>2.9</b>                                   |
| <b>Additional Earnings Indirectly Dependent on Federal &amp; State Health Care Funding</b>                 |  |
| <b>\$2,050,169</b>   | <b>2.6</b>                                   |
| <b>Total Economy Wide Sales Tied to Federal &amp; State Health Care Funding</b>                            |  |
| <b>\$4,341,346</b>   | <b>5.4</b>                                   |

**Table 7**  
**The Net Impact of Federal and State Support in Health Care on Sales in the Health Care Sector**

| <b>Health Care Sector</b>             | <b>Sales Dependent on Federal &amp; State Funding (thousands of 2009 dollars)</b> | <b>Total Health Care Sales, by Sector (thousands of 2009 dollars)</b> | <b>Percent of Total Health Care Sales, by Sector</b> |
|---------------------------------------|---|---|--|
| <b>All Health Care</b>                | <b>\$1,026,067</b>  | <b>\$5,159,695</b>  | <b>19.9</b>  |
| <b>Ambulatory Care Services</b>       | <b>\$810,293</b>  | <b>\$2,166,494</b>  | <b>37.4</b>  |
| <b>Hospitals</b>                      | <b>1,498,317</b>  | <b>\$2,133,207</b>  | <b>70.2</b>  |
| <b>Nursing &amp; Residential Care</b> | <b>\$202,410</b>  | <b>\$381,365</b>  | <b>53.1</b>  |
| <b>Social Assistance</b>              | <b>\$11,866</b>   | <b>\$478,628</b>  | <b>2.5</b>   |

Table 7 shows that nearly 23 percent of the impact on sales occurs in the health care industry (\$1.0 billion). But nearly 20 percent of the total sales attributable to health care are tied to federal and state support of health care.

### SUMMARY

Tables 8 and 9 summarize the estimates presented in Tables 2 through 7. The three parameters estimated in this study are employment, earnings, and sales that are attributable directly and indirectly to federal and state funding in the health care industry. Federal and state support of the health care industry accounts for not only jobs, earnings and sales in the health care industry but also spills over into non-health care industries as well. These estimates are conservative, in that not every health care dollar coming from federal and state sources is identified. Additionally, identifying all programs that are either directly or indirectly connected to "health care" is challenging. For example, the Department of Corrections must budget for medical services for offenders from sources outside the prison (\$5.2 million in Legislative Budget Fiscal 2010), and the State Auditors Office has been charged with new responsibilities under the Patient Protection and Affordable Care Act.

By focusing on Medicare, Medicaid, CHIP, Veteran's Administration, SNAP programs that are directly tied to health care the vast majority of federal and state support is captured. Adding in the payroll associated with federal and





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state employees directly tied to the health care industry also increases the accuracy of the estimates, at least in magnitude as a percent of the total state economy.

State support is limited to the Medicaid match, along with payroll, and may not identify the general fund monies used to support health care in Montana. Utilization fees used by the hospital industry and the intergovernmental transfers particularly for nursing homes directly influence the general funds monies needed to participate in the Medicaid program. Additionally, the analysis is more problematic given the changing dynamic behind the Federal Medical Assistance Percentage match, as well as the increase in eligibility for Medicaid made possible through enactment of the Patient Protection and Affordable Care Act. In sum, the entire health care industry is in flux, made even more so with the political uncertainty of the Patient Protection and Affordable Care Act.

Nevertheless, nearly 14 percent of total private earnings in Montana are affected by federal and state support of health care, and almost 11 percent of all jobs. Absent in this analysis is the additional benefit of a healthier working population, and hence, more productive labor force. Also absent is the importance of health care for attracting and retaining businesses in Montana, and the ever growing retired population in the state.

**Table 9**  
**Health Care Industry Summary Findings**  
(dollar amounts in thousands of 2009 dollars)

|                   | All Health Care | Ambulatory Care | Hospitals   | Nursing & Residential | Social Assistance |
|-------------------|-----------------|-----------------|-------------|-----------------------|-------------------|
| <b>Jobs</b>       | 25,246          | 4,576           | 14,561      | 5,650                 | 459               |
| <b>% of Total</b> | 37.1            | 21.2            | 70.6        | 50.8                  | 3.1               |
| <b>Earnings</b>   | \$1,316,010     | \$259,172       | \$867,843   | \$169,780             | \$19,215          |
| <b>% of Total</b> | 42.6            | 20.2            | 70.9        | 53.3                  | 7.2               |
| <b>Sales</b>      | \$1,026,067     | \$810,293       | \$1,498,317 | \$202,410             | \$11,866          |
| <b>% of Total</b> | 19.9            | 37.4            | 70.2        | 53.1                  | 2.5               |

**Table 8**  
**Economy-wide Summary Findings**  
(dollar amounts in thousands of 2009 dollars)

|                 | Total Dependent on Public Funding | Percent of Montana Total |
|-----------------|-----------------------------------|--------------------------|
| <b>Jobs</b>     | 52,627                            | 10.5                     |
| <b>Earnings</b> | \$2,402,616                       | 14.0                     |
| <b>Sales</b>    | \$4,341,346                       | 5.4                      |

Nearly every health care sector would be adversely affected by the loss of federal and state support, more so for hospitals and nursing homes. Exactly how the health care sector would respond to unfavorable changes is uncertain, as evident in the failure thus far to identify how many doctors would reduce their Medicare patient population should the “Medicare doctor fix” not be resolved in January. Also uncertain is the cost-shift from public sources to private sources should federal or state support for health care change. But certain for the state of Montana is the importance of public funding for not only the health care industry, but for the Montana economy in general.